

REMARKS

The specification has been amended to rectify an obvious formatting computer error in the two last paragraphs of the Background Art portion of the application. The claims have been amended for clarity, as appropriate, and to overcome the objection to claims 35-37 and 40. Applicant notes the indication of claims 24 and 35 containing allowable subject matter. Claim 41 has been added to provide applicant with the protection to which he is believed entitled.

Applicant traverses the rejection of claims 21, 25-32 and 38-40 under 35 USC 103(a) as being unpatentable over Kosa et al. (4,994,059) in view of Kasper et al. (2004/0208207). Applicant cannot agree with the position set forth in the office action that one of ordinary skill in the art would have combined Kosa et al. and Kasper et al. to arrive at the method of independent method claim 21 or independent apparatus claim 32. Kosa et al. is concerned with a laser catheter feedback system of the type employed with transluminal angioplasty catheter devices as disclosed, for example, in column 1, lines 19-24. As is well known, lasers utilized for angioplasty are gas lasers; in this regard, see, for example, the enclosed material from Spectra Gases, that can be found on the Internet at www.spectra-gases.com/LaserGases/prktmrang.htm. In contrast, Kasper et al. is concerned with semiconductor diode lasers, as are the amended claims of the present application. There is no indication in the art of record that gas lasers, of the type employed by Kosa et al., have any need for calculating slope efficiency.

In Kosa et al., the optical energy reflected from the beam splitter 31 to photodetector 41 is supplied to a threshold detector 53 that in turn activates a controller for power supply 15 and electro-mechanical shutter 26. In response to the optical energy incident on detector 41 exceeding the threshold of detector 53, vanes 27 and 28 of shutter 26 are closed to prevent the transmission of laser beam energy into catheter 11; see column 6, lines 4-9. Optical energy reflected from the beam splitter 31, directed in a direction opposite from the optical energy incident on detector 41, is coupled to photodetector 45 by way of optical attenuator 43. The output of detector 45 is coupled to a controller for power supply 15 to control the power supply in some unspecified manner. There is no reason, however, for the signal detected by detector 45 to be used to calculate slope efficiency for the gas laser 14 employed by Kosa et al.

Consequently, one of ordinary skill in the art would not have combined Kosa et al. and Kasper et al. to arrive at the method of claim 21 or the apparatus of claim 32.

The combination of Kosa et al. and Kasper et al. to meet the requirements of claims 21 and 32 is a result of a hindsight, in the extreme. While paragraph 0037 of Kasper et al. indicates it is old to determine slope efficiency, the description in paragraph 0037 is somewhat consistent with the prior art described in the last two paragraphs of the Background Art portion of applicant's application. The same problems set forth in the present application appear to be applicable to the arrangement described in paragraph 0037 of Kasper et al.

Dependent claims 25-31 and 38-40 are allowable for the same reasons advanced for claims 21 and 32, upon which they depend. In addition, claims 25, 26, 36 and 37, as amended, distinguish over Kosa et al. and Kasper et al. by requiring the attenuation of the untapped electromagnetic radiation to be optical. In addition, these claims require control of the optical attenuation of the electromagnetic radiation. In Kosa et al. there is no control of optical attenuator 43.


Dependent claims 22, 23, 33 and 34 are allowable for the same reasons advanced for claims 21 and 32, upon which claims 22, 23, 33 and 34 depend. The IBM Technical Disclosure Bulletin does not cure the deficiencies discussed supra in connection with the rejection of claims 21 and 32.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance are respectfully requested and deemed in order.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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